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REMARKS

We have amended the claims to remove multiple dependencies and to provide a more definite recitation of the subject matter sought to be protected. We have also cancelled claim 21 and have added claim 22.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be examined. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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**Version with markings to show changes made**

**In the claims:**

3. (Amended) A detector device as claimed in [either of claims 1 and 2] claim 1, in which the field-distortor comprises a semi-conductor device disposed adjacent to a first conductor for carrying the first electro-magnetic signal.

4. (Amended) A detector device as claimed in claim 3, in which the [field-distortor is a] semi-conductor device, preferably, a diode.

5. (Amended) A detector device as claimed in [any preceding] claim 1, further comprising a signal generator for generating the input signal.

6. (Amended) A detector device as claimed in [any preceding] claim 1, further comprising a transceiver for transmitting and receiving electro-magnetic signals.

7. (Amended) A detector device as claimed in claim 6, [in which] wherein the transceiver comprises at least one of a transmit antenna and a receive antenna for transmitting an electro-magnetic signal and receiving a received signal respectively; the received signal being derived from the transmitted electro-magnetic signal.

10. (Amended) A detector device as claimed in [any of claims 7 to 9] claim 7, in which the second signal is derived from the received signal.

11. (Amended) A detector device as claimed in [any of claims 7 to 9] claim 7, in which the second signal is derived from an oscillator for generating the transmit signal.

12. (Amended) A detector device as claimed in [any preceding] claim 1, further comprising a signal analyser for monitoring the characteristic of the combined signal to determine the correct operation or otherwise of at least one element of the detector device.

14. (Amended) A detector device as claimed in [any preceding] claim 1, in which the field-distortor does not radiate an electro-magnetic field in response to the input signal.

15. (Amended) A detector device as claimed in [any of claims 1 to 13] claim 1, in which the field-distortor is arranged to radiate an electro-magnetic field in response to the input signal.

16. (Amended) A detector device as claimed in [any preceding] claim 1, in which the field-distortor is spaced apart from the conductor without any physical connection therebetween.

17. (Amended) A detector device of claim 2, [substantially as described herein with reference to and/or as illustrated in the accompanying drawings] in which the field-distortor comprises a semi-conductor device disposed adjacent to a first conductor for carrying the first electro-magnetic signal.

18. (Amended) A motion detection system comprising  
a detector device [as claimed in any preceding claim] comprising at least a field-distortor, responsive to an input signal, for influencing at least one characteristic of a first electro-magnetic signal; and a mixer for combining at least the influenced first electro-magnetic signal and a second signal to produce a combined signal having a characteristic determined by the input signal.

19. (Amended) A method of operating a detector device comprising at least one circuit element and a conductor bearing a first electro-magnetic signal; the circuit element being disposed adjacent to the conductor; the method comprising [the steps of]

applying a signal to the circuit element to vary the electrical or electromagnetic characteristics of the circuit element and thereby influence at least one characteristic of the first electro-magnetic signal; and  
producing an output signal indicative of the degree of influence exerted on the first electro-magnetic signal.

20. (Amended) A method as claimed in claim 19, in which the detector device comprising at least a field-distortor, responsive to an input signal, for influencing at least one characteristic of a first electro-magnetic signal; and a mixer for combining at least the influenced first electro-magnetic signal and a second signal to produce a combined signal having a characteristic determined by the input signal motion detection device [is a device as claimed in any of claims 1 to 17].

Please add the following new claim.

--22. A detector device as claimed in claim 2, in which the field-distortor comprises a semi-conductor device disposed adjacent to a first conductor for carrying the first electro-magnetic signal.